

Maine Army National Guard)	
Camp Keyes)	
Kennebec County)	Departmental
Augusta, Maine)	Finding of Fact and Order
A-802-71-B-R)	Air Emission License

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

The Maine Army National Guard (Camp Keyes) located in Augusta, Maine has applied to renew their Air Emission License permitting the operation of fuel burning and process equipment associated with their facility. Camp Keyes operates in several buildings including vehicle maintenance buildings, administrative offices, and training buildings. The air emissions occur from the operation of several small size boilers, a paint booth, an emergency diesel generator and four solvent degreasing units.

B. Emission Equipment

1. Camp Keyes is licensed to operate the following air emission units:

Fuel Burning Equipment

Equipment (Boiler #)	Boiler Age	Maximum Capacity (MMBTU/hr)	Fuel Type, %Sulfur	Maximum Firing Rate	Stack #	Stack Height (ft)
Boiler #1	1981	1.14	#2 oil, 0.35%	8.4 gal/hr	7A	26.1
Boiler #2	1980	2.68	#2 oil, 0.35%	18.2 gal/hr	14/35A	22.0
Boiler #3	1976	2.68	#2 oil, 0.35%	18.2 gal/hr	37A	24.0
Boiler #4	1981	1.36	#2 oil, 0.35%	8.8 gal/hr	39A	24.0
Propane Heater	1992	6.99	Propane	72 scfm	37B	26.4

2. Insignificant Emission Sources

Camp Keyes operates other boilers and propane heaters at the facility's buildings, each under 1.0 MMBtu/hr heat input capacity. Therefore, these boilers are mentioned only for inventory purposes and will not be included in short term emission rate calculations. These units are not listed in the license but are to be included in the fuel capacity limits for the total facility's emissions calculations.

C. Application Classification

The application for Camp Keyes does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only. In this license renewal the propane incinerator was changed to a propane heater. This propane unit was always used as a heater for the paint booth and never as an incinerator. Therefore this is not a modification of the license, but a correction.

Camp Keyes emits less than 10 tons per year of any single Hazardous Air Pollutant (HAPS) and less than 25 tons per year of total HAPS and is therefore not a major source for HAPS. Based on the calculated results in the original license, Camp Keyes is not considered major for any criteria pollutant.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

B. Existing Emission Units

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

Camp Keyes will be subject to BPT requirements since it is an existing source undergoing a license renewal without any modifications.

1. #2 Oil-Fired Boilers

Camp Keyes operates four oil-fired boilers to provide building heat and hot water to the several buildings that make up the facility. The regulated pollutants emitted from the #2 oil-fired boilers are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC). Camp Keyes has proposed the maximum combustion of 200,000 gallons per year of #2 fuel oil, with a maximum fuel sulfur content of 0.35% by weight, in the boilers as BPT for all emitted pollutants. Due to the individual size of the boilers, the combustion of low sulfur distillate fuel oil, and a limit of 200,000 gallons per year, emissions from these boilers are considered small and do not warrant additional pollution control equipment.

2. Emergency Generator

Camp Keyes maintains an emergency diesel generator for facility use in case of power interruptions. The diesel generator has a heat input rate of 2.7 MMBtu/hour. The primary pollutant of concern from the diesel generator is NO_x. BPT is achieved by limiting operation of the emergency diesel generator to 500 hours per year and limiting the diesel fuel's sulfur content to a maximum of 0.05% by weight. The emergency diesel generator will be operated only when normal testing procedures, as recommended by the manufacturer, are being performed or in case of an emergency as defined in Chapter 100 of the Department Regulations.

Definition of “Emergency”

Per MEDEP Chapter 100, the definition of emergency for Chapter 115 purposes is the following:

“... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the license, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

By definition, a diesel used for load shedding purposes (also known as a “Dispatchable Load Generators”) is not considered an “Emergency Generator”.

3. Paint Booth

Camp Keyes operates a spray paint booth for painting of various military vehicles. The paint booth has been designed and constructed to minimize employee exposure to solvents and to minimize VOC emissions to the outside air. The booth is equipped with an updraft air circulation system. When in use, air flows into the spray booth via ductwork, then the air is exhausted through particulate filters located in the booth’s ceiling.

The propane-fired heating unit is fired whenever spray painting is done in the booth. It is used to heat the booth to a sufficient temperature for painting. Due to the size of the unit, the type of fuel fired, and the limited amount of spray painting done at Camp Keyes there will be no propane fuel use limit. Total ton per year criteria pollutant emissions will be based on maximum potential fuel use combustion. PM emissions from the unit shall be limited to 0.12 lb/MMBtu per Chapter 103 of the Maine DEP regulations. Emissions of SO₂, CO, NO_x, and VOC, from the propane fired unit, are estimated by EPA’s “Compilation of Air Pollutant Emission Factors”, AP-42.

The facility has used various types of paints which emit approximately 2000 pounds per year of VOC from the operation of the paint booth, without consideration of any control technologies. The painting of metal parts, in this case vehicles, makes Chapter 129 of the Maine DEP regulations applicable. To meet the requirements of Chapter 129, Camp Keyes shall limit “maximum theoretical emissions from all

surface coating operations to less than 1,666 pounds in any calendar month”. By accepting this enforceable license condition, Camp Keyes is only subject to Chapter 129’s Section 7(B) and Section 8, which includes the proper recordkeeping and reporting requirements. BPT for the paint spray booths will include continued maintenance of the filter pads to minimize PM emissions and to maintain monthly records of paint purchase and use.

4. Solvent Degreasers

Camp Keyes operates four solvent degreasing units located in maintenance shop areas of the facility. The degreasers are Safety-Kleen parts degreasers and use Safety-Kleen 105 solvent. Camp Keyes uses approximately 55 gallons of solvent per year.

Camp Keyes shall maintain a record of the solvent type, the volume of solvent added and removed ,and the VOC and HAP content of the solvent.

1. In accordance with Chapter 130 section 3A of the Department regulations, Camp Keyes shall equip the degreasing unit with the following:

- A. Equip the degreaser with a cover that can be operated with one hand if vapor pressure >15 mmHG at 100°F

- B. Affix a permanent conspicuous label summarizing the following operating standards:

- Close cover when not in use,
 - Drain cleaned parts for at least 15 seconds or until dripping ceases,
 - If applicable, solvent spray must be a solid fluid stream and shall not exceed a pressure of 10 pounds per square inch gauge (psig),
 - Do not degrease porous or absorbent materials,
 - Do not operate degreaser if draft is greater than 131.2 feet per minute (ft/min) as measured between 3.28 and 6.56 feet upwind and at the same elevation as the tank lip), and
- Do not operate degreaser upon occurrence of any visible leak until such leak is repaired

2. In accordance with Chapter 130, Section 3A of the Department regulations, Camp Keyes shall follow operational standards when making use of the parts degreaser.

III. EMISSION STANDARDS

Emissions from each of Camp Keyes' boilers, including those listed in Section I (B), shall not exceed the following limits:

1. Maximum Boiler Emissions

Based on the size of the heating units, the type of fuel fired (#2 at 0.14 MMBtu/gal), with a maximum sulfur content of 0.35% by weight, and emissions factors/limits derived from Department regulations or EPA's AP-42, emissions from each of the boilers and the propane unit shall not exceed the following short-term emissions:

<u>Pollutant</u>	<u>lb/MMBtu *</u>	(Propane unit)	(Boilers #1 and #4)	(Boilers #2 and #3)
		<u>lb/hr</u>	<u>lb/hour **</u>	<u>lb/hour</u>
PM	0.12	0.84	0.2	0.4
PM ₁₀	0.12	0.84	0.2	0.4
SO ₂	--	0.1	0.6	1.3
NO _x	--	1.1	0.6	1.3
CO	--	0.2	0.1	0.1
VOC	--	0.1	0.1	0.1

* Applies only to units over 3.0 MMBtu/hr in size, for Camp Keyes the propane-fired unit is subject.

** Note the calculated maximum lb/hour emission limit is based on the larger boiler #4, operating at 1.36 MMBtu/hr.

2. Facility Emissions and Fuel Use Caps

Allowable annual facility emissions are calculated from the maximum combustion of 200,000 gallons of 0.35% sulfur content #2 fuel oil based on a 12 month rolling total, maximum potential emissions from the propane fired unit, the emergency diesel generator limited to 500 hours per year, and the non-combustion VOC emitting equipment, including the spray paint booth and solvent degreasers.

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Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/year</u>
PM	1.9
PM ₁₀	1.9
SO ₂	7.1
NO _x	11.4
CO	1.1
VOC	2.3

IV. AMBIENT AIR QUALITY ANALYSIS

According to Chapter 115 of the Maine Bureau of Air Quality Control Regulations, the level of air quality analysis and monitoring are determined on a case-by-case basis. Based on analyses for similar sources, the allowable emissions, and the location, ambient air quality standards including increment are not expected to be violated, therefore an ambient air impact analysis will not be required for this source at this time.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards, or increment standards either alone or in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-802-71-B-R, subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

- (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

- (16) Visible emissions from the boilers' stacks shall not exceed 20% opacity on a 6-minute block average. Visible emissions from the emergency diesel generator shall not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

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- (17) Camp Keyes shall limit short-term emissions from the boilers and propane unit to the following:

<u>Pollutant</u>	<u>lb/MMBtu *</u>	(Propane unit)	(Boilers #1 and #4)	(Boilers #2 and #3)
		<u>lb/hr</u>	<u>lb/hour **</u>	<u>lb/hour</u>
PM	0.12	0.84	0.2	0.4
PM ₁₀	0.12	0.84	0.2	0.4
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VOC	--	0.1	0.1	0.1

* Applies only to units over 3.0 MMBtu/hr in size, for Camp Keyes only the propane-fired unit is applicable.

** Note the calculated maximum lb/hour emission limit is based on the larger boiler #4, operating at 1.36 MMBtu/hr.

- (18) Camp Keyes shall limit annual fuel use to 200,000 gallons of #2 fuel oil with a maximum fuel sulfur content of 0.35% by weight, based on a 12 month rolling total. The facility shall demonstrate compliance by maintaining a monthly total as well as a 12 month rolling total and shall keep fuel receipts from the supplier showing the sulfur content of the #2 fuel oil as a way to demonstrate compliance with the fuel sulfur limit.
- (19) Camp Keyes shall limit the emergency diesel generator to 500 hours per year of operation. The maximum sulfur content of the diesel fuel shall be limited to 0.05% by weight. An hour meter shall be operated and maintained to determine compliance with the 500 hours per year. The facility shall maintain a log documenting each time the generator is run, including the date, number of hours, rolling total of hours and the reason for operating the generator.

(20) Camp Keyes shall operate and keep records of all solvent degreasers according to the requirements of Chapter 130 of the Department's regulations:

1. Camp Keyes shall equip each degreasing unit with the following:

A. Equip the degreaser with a cover that can be operated with one hand if vapor pressure >15 mmHG at 100°F

B. Affix a permanent conspicuous label summarizing the following operating standards:

- Close cover when not in use,
- Drain cleaned parts for at least 15 seconds or until dripping ceases,
- If applicable, solvent spray must be a solid fluid stream and shall not exceed a pressure of 10 pounds per square inch gauge (psig),
- Do not degrease porous or absorbent materials,
- Do not operate degreaser if draft is greater than 131.2 feet per minute (ft/min) as measured between 3.28 and 6.56 feet upwind and at the same elevation as the tank lip), and
- Do not operate degreaser upon occurrence of any visible leak until such leak is repaired

2. Camp Keyes shall follow operational standards when operating the parts degreaser.

3. Records shall be maintained in regards to solvent added and used, which would include the dates when solvent is added and the volume of solvent added. Handling, storage and disposal of solvent shall be done in accordance to Chapter 130 Section 4 of the Departments regulations.

(21) Camp Keyes shall maintain and operate the filters on the spray paint booths to minimize PM emissions. Visible emissions from the spray booth shall not exceed 5% opacity. Per Chapter 129, Camp Keyes shall limit "maximum theoretical emissions from all surface coating operations to less than 1,666 pounds in any calendar month.

(22) Camp Keyes shall keep track of the number of gallons of paints, and the VOC content (lb/gallon) of these paints, that are used in the spray booths and other non-combustion VOC sources shall be documented to determine the amount of VOC

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emissions associated with that process. Monthly paint purchases and use records shall be maintained.

(23) Camp Keyes shall pay the annual air emission license fee within 30 days of December 31st of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

(24) The term of this license shall be five years from the date of signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS ____ DAY OF _____ 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
BROOKE E. BARNES, ACTING COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 1, 2002

Date of application acceptance: November 8, 2002

Date filed with Board of Environmental Protection: _____